



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 22 81 04 61

**Classification of the application (IPC):**  
A47L 9/00, A47L 9/10, A47L 9/04, A47L 9/28, A47L 5/28, A47L 5/24

**Technical fields searched (IPC):**  
A47L

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X A	US 2017319038 A1 (KIM NAMHEE [KR] ET AL) 09 November 2017 (2017-11-09) * paragraphs [0066] - [0069], [0092], [0116]; figures 1,2,3,5,6-11,14,15,19-21 *	1, 3-9, 11-15 2, 10
A	DE 102019121499 A1 (MIELE & CIE [DE]) 11 February 2021 (2021-02-11) * figure 10 *	3-5
A	WO 2020209440 A1 (LG ELECTRONICS INC [KR]) 15 October 2020 (2020-10-15) * figure 10 *	3-5

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 25 June 2024	Examiner Lopez Vega, Javier
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 25-06-2024  
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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2017319038	A1	09-11-2017	US	2017319038 A1	09-11-2017
			WO	2017196024 A2	16-11-2017
DE 102019121499	A1	11-02-2021	<i>NONE</i>		
WO 2020209440	A1	15-10-2020	EP	3954264 A1	16-02-2022
			KR	20200119063 A	19-10-2020
			US	2022354327 A1	10-11-2022
			WO	2020209440 A1	15-10-2020